



# RAILROAD COMMISSION OF TEXAS

## HEARINGS DIVISION

### PROPOSAL FOR DECISION

---

**OIL & GAS DOCKET NO. 09-0299480: THE APPLICATION OF VANTAGE FORT WORTH ENERGY LLC PURSUANT TO THE MINERAL INTEREST POOLING ACT FOR THE FORMATION OF A POOLED UNIT FOR THE MARTIN-FOREST HILLS MIPA 1H WELL IN THE NEWARK, EAST (BARNETT SHALE) FIELD, TARRANT COUNTY, TEXAS**

---

---

**OIL & GAS DOCKET NO. 09-0299482: THE APPLICATION OF VANTAGE FORT WORTH ENERGY LLC PURSUANT TO THE MINERAL INTEREST POOLING ACT FOR THE FORMATION OF A POOLED UNIT FOR THE MARTIN-FOREST HILLS MIPA 3H WELL IN THE NEWARK, EAST (BARNETT SHALE) FIELD, TARRANT COUNTY, TEXAS**

---

---

**OIL & GAS DOCKET NO. 09-0299483: THE APPLICATION OF VANTAGE FORT WORTH ENERGY LLC PURSUANT TO THE MINERAL INTEREST POOLING ACT FOR THE FORMATION OF A POOLED UNIT FOR THE MARTIN-FOREST HILLS MIPA 4H WELL IN THE NEWARK, EAST (BARNETT SHALE) FIELD, TARRANT COUNTY, TEXAS**

---

---

**OIL & GAS DOCKET NO. 09-0299484: THE APPLICATION OF VANTAGE FORT WORTH ENERGY LLC PURSUANT TO THE MINERAL INTEREST POOLING ACT FOR THE FORMATION OF A POOLED UNIT FOR THE SOUTH LOOP 820 MIPA 4H WELL IN THE NEWARK, EAST (BARNETT SHALE) FIELD, TARRANT COUNTY, TEXAS**

---

### APPEARANCES

**For Applicant Vantage Fort Worth Energy LLC:**

Mr. John Hicks, Attorney at Law  
Mr. Jeffrey Scoggins, Land Manager  
Mr. Jaime Hecht, Sr. Development Engineer  
Ms. Nicole Sims, Land Coordinator

## **PROCEDURAL HISTORY**

Date Applications Filed:	January 20, 2016
Date of Notice of Hearing:	February 19, 2016
Date of Hearing:	April 5, 2016
Transcript Received:	April 26, 2016
Record Closed:	June 10, 2016
Report and Recommendation Issued:	July 1, 2016
Heard by:	Ryan M. Lammert, Administrative Law Judge Brian Fancher, Technical Examiner

## **STATEMENT OF THE CASE**

Vantage Fort Worth Energy LLC (“Vantage”) has filed four applications under the Texas Mineral Interest Pooling Act (the “MIPA”), Chapter 102 of the Texas Natural Resources Code. The four dockets were consolidated for the purpose of a joint hearing record. By its applications, Vantage is requesting that the Commission enter orders creating four force-pooled units: the Martin-Forest Hills 1H MIPA Unit (the “1H Unit”) with its proposed Well No. 1H, the Martin-Forest Hills 3H MIPA Unit (the “3H Unit”) with its proposed Well No. 3H, the Martin-Forest Hills 4H MIPA Unit (the “4H Unit”) with its proposed Well No. 4H, and the South Loop 820 4H MIPA Unit (the “SL 4H Unit”) with its proposed Well No. 4H. If the applications are approved, Vantage intends to drill the MIPA wells as horizontal wells in the Newark, East (Barnett Shale) Field (the “Field”) in Tarrant County, Texas.

The applications are unopposed. The Examiners recommend approval.

## **APPLICABLE LAW**

Subject to limitations found elsewhere in the act, Section 102.011 of the MIPA provides that “[w]hen two or more separately owned tracts of land are embraced in a common reservoir of oil or gas for which the commission has established the size and shape of proration units, whether by temporary or permanent field rules, and where there are separately owned interests in oil and gas within an existing or proposed proration unit in the common reservoir and the owners have not agreed to pool their interests, and where at least one of the owners of the right to drill has drilled or has proposed to drill a well on the existing or proposed proration unit to the common reservoir, the commission, on the application of an owner specified in Section 102.012 of [the MIPA] and for the purpose of avoiding the drilling of unnecessary wells, protecting correlative rights, or preventing waste, shall establish a unit and pool all of the interests in the unit within an area containing the approximate acreage of the proration unit, which unit shall in no event exceed 160 acres for an oil well or 640 acres for a gas well plus 10 percent tolerance.”

## **DISCUSSION OF THE EVIDENCE**

### **Vantage’s Evidence**

All four of the proposed MIPA units are located in Fort Worth, Tarrant County, in the Martin-Forest Hills or South Loop 820 areas southwest of Lake Arlington.<sup>1</sup> The proposed 1H Unit and

---

<sup>1</sup> Ex. 6.

proposed SL 4H Unit adjoin one another. Similarly, the proposed 3H Unit and proposed 4H Unit adjoin one another. Each of the four proposed units includes some unleased acreage and acreage from one or more voluntary pooled units.<sup>2</sup>

The proposed SL 4H Unit contains 58.36 total acres comprised of 15 separate tracts. Vantage has leases on 12 tracts containing 48.38 mineral acres, which is 82.9% of the total acreage in the SL 4H Unit. The proposed SL 4H Unit includes 3 unleased tracts, containing 9.98 acres, which is 17.1% of the total acreage.<sup>3</sup>

The proposed 1H Unit contains 59.25 total acres comprised of 15 separate tracts. Vantage has leases on 13 tracts containing 56.4 mineral acres, which is 95.2% of the total acreage in the 1H Unit. The proposed 1H Unit includes 2 unleased tracts, containing 2.85 acres, which is 4.8% of the total acreage.<sup>4</sup>

The proposed 3H Unit contains 62.3 total acres comprised of 15 separate tracts. Vantage has leases on 14 tracts containing 61.19 mineral acres, which is 98.2% of the total acreage in the 3H Unit. The proposed 3H Unit includes 1 unleased tract, containing 1.11 acres, which is 1.8% of the total acreage.<sup>5</sup>

The proposed 4H Unit contains 45.31 total acres comprised of 27 separate tracts. Vantage has leases on 23 tracts containing 43.42 mineral acres, which is 95.8% of the total acreage in the 4H Unit. The proposed 4H Unit includes 4 unleased tracts, containing 1.89 acres, which is 4.2% of the total acreage.<sup>6</sup>

### **Field, Discovery Date, and State of Texas Ownership**

The MIPA does not apply in fields discovered and produced before March 8, 1961, and it does not apply to land in which the State of Texas has an interest unless the State has given consent.<sup>7</sup> These exceptions do not apply in this case—the proposed MIPA units lie within the productive limits of the Newark, East (Barnett Shale) Field, which was not discovered until 1981, and no State-owned minerals exist within the proposed MIPA units.<sup>8</sup>

### **The Voluntary Pooling Offer**

On February 23, 2016, Vantage sent a voluntary pooling offer to all mineral owners of unleased tracts within the boundaries of the proposed units.<sup>9</sup> Vantage offered these unleased mineral owners four options for inclusion of their interests in the respective proposed units: two lease

---

<sup>2</sup> Exs. 2A, 2B, 2D, and 2E; Ex. 8(U). All four proposed units include some acreage from the Martin-Forest Hills Voluntary Pooled Unit. In addition, the proposed 1H and SL 4H Units each include acreage from the South Loop 820 Voluntary Pooled Unit.

<sup>3</sup> Exs. 2A, 9A, and 22.

<sup>4</sup> Exs. 2B, 9B(U), and 22.

<sup>5</sup> Exs. 2D, 9D(U), and 22.

<sup>6</sup> Exs. 2E, 9E(U), and 22.

<sup>7</sup> MIPA §§ 102.003, 102.004.

<sup>8</sup> Exs. 2A, 2B, 2D, and 2E; Tr., pgs. 12-13.

<sup>9</sup> Tr., pgs. 26-30; Exs. 11A, 11B, 11D, and 11E.

options, a working-interest participation option, and a farm-out option.<sup>10</sup>

One lease option included a 25% royalty and a bonus of \$3,000 per net mineral acre.<sup>11</sup> The oil, gas, and mineral lease attached to the offer letter had a primary term of three years.<sup>12</sup> The second lease option was to lease with a 20% royalty and a bonus of \$3,500 per net mineral acre.<sup>13</sup> Except for the different royalty and bonus amounts, this second lease option was identical to the first lease option. The oil, gas and mineral lease attached to the offer letter provided that Vantage was authorized to pool the tract owner's mineral interest into a pooled unit. The lease provided that the lessee could drill a horizontal well beneath the surface of the leased premises but could not conduct drilling operations on the surface of the lease.<sup>14</sup>

The participation option provided each unleased owner an opportunity to participate as a working interest owner in the respective proposed unit. By electing this option, the owner would be responsible for his or her proportionate share of the costs of drilling and completing the well or wells in the unit and would share proportionately in the production from the well. Each offer letter had as an attachment an AFE (Authorization for Expenditure) indicating the estimated cost to complete and drill the relevant well. The estimated cost for Well No. SL 4H is \$2,022,363; for the 1H, \$2,133,330; for the 3H, \$2,137,584; and for the 4H, \$1,755,597.<sup>15</sup> This option stated that if the owner failed to fully pay his or her proportionate share of costs to Vantage within 15 days prior to commencement of actual drilling operations, then the owner would be subject to the non-consent penalties set forth in the standard Joint Operating Agreement (the "JOA") proposed by Vantage. Vantage represented to each owner that the proposed JOA would not contain any of the following: (1) a preferential right of the operator to purchase mineral interests in the unit; (2) a call on or option to purchase production from the unit; (3) operating charges that may include any part of district or central office expenses other than reasonable overhead charges; or (4) a prohibition against non-operators questioning the operation of the unit.<sup>16</sup>

The farm-out option proposed to each unleased owner that he or she convey to Vantage an 80% net revenue interest attributable to his or her mineral interest and retain an overriding royalty interest equal to 20% of 8/8ths, proportionately reduced to the extent that each owner's mineral interest bears to all of the mineral interests in the unit, until payout of all well costs (to drill, test, fracture stimulate, complete, equip, and connect the well for production). At payout, the electing owner would have the option to convert the retained override to a 25% working interest, proportionately reduced.<sup>17</sup>

Vantage believes that the lease terms included in its voluntary offer were fair and reasonable.<sup>18</sup> Mr. Scoggins testified that the offers made in conjunction with these

---

<sup>10</sup> *Id.*

<sup>11</sup> *Id.*

<sup>12</sup> *Id.*

<sup>13</sup> *Id.*

<sup>14</sup> Exs. 11A, 11B, 11D, and 11E.

<sup>15</sup> *Id.*

<sup>16</sup> *Id.*; Tr. 27.

<sup>17</sup> Exs. 11A, 11B, 11D, and 11E.

<sup>18</sup> Tr., pg. 28.

applications contained the same terms that Vantage used in previous MIPA applications that were found to be fair and reasonable.<sup>19</sup>

### **Need for MIPA Wells**

Vantage's expert petroleum engineering witness, Mr. Jaime Hecht, prepared a model to predict recovery from Barnett Shale wells with varying drainhole length.<sup>20</sup> Mr. Hecht presented a map showing Barnett Shale wells within a five-mile radius of the proposed MIPA units.<sup>21</sup> Mr. Hecht also presented a cross-section over that area showing the Barnett Shale formation.<sup>22</sup> From the location of existing wells and his study of the cross-section, Mr. Hecht concluded that the Barnett Shale formation is present throughout the proposed MIPA expected to be productive over the entirety of the area within a five-mile radius, including the four proposed MIPA units.<sup>23</sup>

For every well within the five-mile study with sufficient data (481 wells), Mr. Hecht plotted the estimated drainhole length of the well versus the well's estimated ultimate oil recovery ("EUR"). He calculated the estimated ultimate recoveries (the "EURs") by decline curve analysis. Using the EUR as the y-coordinate and the estimated drainhole length as the x-coordinate, he then created a scatter plot of the data points. A computer-generated least-squares regression of the plotted data points resulted in a line through the points with a positive slope of 0.7806 and a y-intercept of 993. The inference of this resulting equation is that an average well within the five-mile radius will recover 0.7806 MMCF of gas for each incremental foot of drainhole length.<sup>24</sup>

At the time of the hearing, Vantage's development plan for the South Loop 820 Unit and the Martin-Forest Hills Unit included drilling all four of the proposed MIPA wells in a parallel orientation at specific locations based on between-well spacing that Vantage selected for the optimal development of the Barnett Shale in this area.<sup>25</sup>

Vantage's plats showed that, in spite of the percentage of acreage under lease, there was no path for the planned wellbores that would not encounter some unleased, unpooled interest.<sup>26</sup> Vantage contends that, absent MIPA approval of the proposed wells, the underlying reserves could not be recovered and would therefore be wasted.<sup>27</sup> Mr. Hecht also testified that MIPA approval was necessary to protect correlative rights by giving Vantage and its lessors a reasonable opportunity to recover their fair share of the oil and gas underlying the proposed units.<sup>28</sup>

---

<sup>19</sup> Tr., pgs. 27-28.

<sup>20</sup> Ex. 18.

<sup>21</sup> Tr., pgs. 48-49; Ex. 14.

<sup>22</sup> Ex. 15; Tr., pg. 49.

<sup>23</sup> Tr., pgs. 51-52; Tr., pgs. 58-60.

<sup>24</sup> Tr., pgs. 56-57.

<sup>25</sup> Tr., pg. 49; Ex. 14.

<sup>26</sup> Exs. 20A, 20B(U), 20D(U), and 20E(U).

<sup>27</sup> Ex. 20; Exs. 20A, 20B(U), 20D(U), and 20E(U); Tr., pgs. 67-70.

<sup>28</sup> Tr., pgs. 70-71.

Mr. Hecht presented plats of the proposed MIPA units and associated wells, in each case showing the portion of the lateral that could not be drilled or perforated absent approval of the application.<sup>29</sup> In each case, absent approval of the application, the length of the well's completed lateral would be significantly shorter than planned.<sup>30</sup> He then calculated the following amounts of lost reserves based on the lost perforated drainhole length of each well if the MIPA applications were not approved:<sup>31</sup>

<u>Well</u>	<u>Lost drainhole length</u>	<u>Lost reserves if MIPA not approved</u>
SL 4H	2,148 feet	1,585 MMCF
1H	1,356 feet	1,001 MMCF
3H	917 feet	677 MMCF
4H	1,019 feet	752 MMCF

### **Charge for Risk**

Vantage's applications requested that the Commission's MIPA pooling orders include a 100% charge for risk attached to the working-interest component, as authorized under Section 102.052 of MIPA.<sup>32</sup> In addition, the Notice of Hearing for the four MIPA applications gave notice that Vantage was seeking a 100% charge for risk<sup>33</sup>—but no party appeared to protest the 100% charge for risk, or any other aspect of the four applications.

Mr. Hecht stated that there are risks inherent to drilling in an unconventional reservoir such as the Barnett Shale development that are different than in a traditional reservoir.<sup>34</sup> For example, the risk of drilling a dry hole is associated with conventional reservoirs that experience a fault or sand pinch-out, not with unconventional reservoirs such as the Barnett Shale; however, there are other risks, including the operational problems associated with deep horizontal shale wells and the risk a well will be uneconomic, even though it was not a dry hole.<sup>35</sup> Additionally, Vantage presented testimony to support the requested 100% charge for risk.<sup>36</sup> Vantage asserts that current economic conditions, in addition to risks inherent in an unconventional reservoir, warrant the assessment of the requested 100% charge for risk.<sup>37</sup> Vantage also submitted evidence of six previous Oil & Gas Dockets wherein the Commission approved a 100% charge for risk.<sup>38</sup>

Vantage believes that there exists significant risk that a Barnett Shale well in the area of the MIPA units will be uneconomic, meaning the well will not recover the cost of drilling and completing the well. Using an average cost of drilling and completing equal to roughly \$2.0

<sup>29</sup> Exs. 20A, 20B(U), 20D(U), and 20E(U).

<sup>30</sup> Tr., pgs. 69-70.

<sup>31</sup> Ex. 20(U).

<sup>32</sup> Exs. 2A, 2B, 2D, and 2E; Tr., pgs. 7-8.

<sup>33</sup> Ex. 3.

<sup>34</sup> Tr., pgs. 75-80.

<sup>35</sup> *Id.*

<sup>36</sup> Tr., pgs. 75-90.

<sup>37</sup> *Id.*

<sup>38</sup> Ex. 12.

million, a yearly operating expense of \$36,000, a gas price of \$1.73 per MCF,<sup>39</sup> a severance tax rate of 6% and 7.5% (depending on the year), and a 10% discount rate, Mr. Hecht found the break-even gas recovery point, at which the well's cost would be recouped, was approximately 4.1 BCF.<sup>40</sup> Vantage estimated the volumetrically-calculated gas in place beneath the leased acreage within four proposed units. Using a 55 percent recovery factor, Vantage calculated that the recoverable gas in place beneath the leased acreage of the SL 4H Unit is 4.4 BCF; the 1H Unit is 5.1 BCF; the 3H Unit is 5.6 BCF; and the 4H Unit is 4.0 BCF.<sup>41</sup>

Of the 481 Barnett Shale wells within five miles of the proposed MIPA wells, approximately 75% had estimated ultimate recoveries of less than 4.1 BCF.<sup>42</sup> If approximately 75% of the wells are not expected to reach the breakeven point, it means that, on average, an operator has to pay for at least three wells to end up with one good one. However, the scatter plot of the estimated ultimate recovery of wells within a five-mile radius shows significant variability in individual well performance.<sup>43</sup>

### **EXAMINERS' OPINION**

Under the MIPA, the Commission may order compulsory pooling only if it is necessary to avoid the drilling of unnecessary wells, protect correlative rights, or prevent waste. The evidence in this unopposed proceeding demonstrates that compulsory pooling is necessary to protect correlative rights.

Due to the locations of the unleased tracts within the respective proposed units, the MIPA wells could not be drilled as proposed without compulsory pooling. Well SL 4H would traverse two unleased tracts and be less than the minimum spacing distance to one unleased tract inside the SL 4H Unit; Well 1H would traverse one unleased tract and be less than the minimum spacing distance to one unleased tract inside the 1H Unit; Well 3H would traverse one unleased tract; and Well 4H would traverse two unleased tracts and be less than the minimum spacing distance to one unleased tract inside the 4H Unit.<sup>44</sup> Vantage cannot drill these wells, as proposed, unless compulsory pooling is ordered because of the impracticality of drilling around the unleased tracts. Therefore, in the absence of compulsory pooling, each mineral interest owner within these proposed units would not be afforded a reasonable opportunity to recover his fair share of hydrocarbons.

Compulsory pooling as proposed by Vantage, wherein the proposed horizontal wells will extend the length of the unit, protects correlative rights because all tract owners, whether leased or unleased, will have their fair share of hydrocarbons produced.

Furthermore, the wells and units proposed by Vantage would allow the Commission to fashion an order in compliance with Section 102.017 of the MIPA, which requires that a MIPA order be made on terms that are fair and reasonable and will afford the owner of each tract in the unit the opportunity to produce and receive their fair share.

---

<sup>39</sup> Ex. 21; Tr., pgs. 73-74.

<sup>40</sup> Ex. 21.

<sup>41</sup> Ex. 19(U).

<sup>42</sup> Tr., pgs. 71-73.

<sup>43</sup> Ex. 18.

<sup>44</sup> Exs. 20A, 20B(U), 20D(U), and 20E(U).

The Examiners believe that Vantage's voluntary pooling offer was fair and reasonable. Its offer followed the framework—providing a lease, participation, and farm-out options—that the Commission has determined to be fair and reasonable in recent approved MIPA applications.

### **Charge for Risk**

Section 102.052(a) of the MIPA provides, “As to an owner who elects not to pay his proportionate share of the drilling and completion costs in advance, the commission shall make provision in the pooling order for reimbursement solely out of production, to the parties advancing the costs, of all actual and reasonable drilling, completion, and operating costs plus a charge for risk not to exceed 100 percent of the drilling and completion costs.”

Vantage's unopposed applications requested a 100% charge for risk be applied to the working interest portion of an owner who elects not to pay his proportionate share of the drilling and completion costs in advance.

Traditionally, Commission precedent has been to not assess a risk penalty against unleased owners who are being forcibly pooled. The working-interest portion of the force-pooled basis has been subjected to a zero risk penalty in the majority of the MIPA applications, starting with Finley, which the Commission has approved.<sup>45</sup> However, in the Commission's most recent Barnett Shale MIPA cases,<sup>46</sup> the Commission determined that a 50% risk penalty was fair and reasonable. At conference in discussing the assessment of the 50% risk penalty in the previous Vantage MIPA cases, the Commissioners indicated that a 50% risk penalty would establish precedent that the Commission will allow risk penalty in appropriate circumstances.<sup>47</sup>

Here, while Vantage requested a 100% risk penalty be assessed to the working interest portion, the Examiners believe that such a high penalty is not supported either by precedent or the evidence provided by Vantage and therefore, it is not "fair and reasonable" as required by Section 102.017 of the MIPA. As explained below, the Examiners believe that imposition of a 50% risk penalty based on the facts of this case, is fair and reasonable as is required by Section 102.017 of the MIPA.

First, under the Commission's practice of providing the unleased owners with a cost-free royalty at the market rate for leases in the area, the unleased owners are in as good or better position than all of the other lessors in the MIPA units. The charge for risk is applicable only to the reimbursement to the parties advancing costs that is required under MIPA Section 102.052 and that is made solely out of production. This would apply only to the portion of the unleased owners' mineral interest that is treated as a cost-bearing working interest.

But, to support its position that there is significant risk involved in drilling Barnett Shale wells

---

<sup>45</sup> The Commission has approved compulsory pooling in the Barnett Shale in the following dockets: Oil & Gas Docket No. 09-0252373, Application of Finley Resources Inc. for the Formation of a Unit Pursuant to the Mineral Interest Pooling Act for the Proposed East Side Unit; Oil & Gas Docket No. 09-0261375, Application of XTO Energy Inc. Pursuant to the Mineral Interest Pooling Act for the Proposed Rosen Heights 262-Acre Pooled Unit, Well No. 1H; Oil & Gas Docket No. 09-023416, Application of XTO Energy Inc. Pursuant to the Mineral Interest Pooling Act for the Proposed Wesco A1 Pooled Unit, Well No. 10H; Oil & Gas Docket No. 09-023417, Application of XTO Energy Inc. Pursuant to the Mineral Interest Pooling Act for the Proposed Page Street D1 Pooled Unit, Well No. 11H.

<sup>46</sup> Oil & Gas Docket Nos. 09-0284751, 09-0284752, 09-0284753, and 09-0284754, Applications of Vantage Fort Worth Energy LLC Pursuant to the Mineral Interest Pooling Act for the Formation of a Pooled Unit for the Rosedale North 7H-10H MIPA Units, Well Nos. 7H-10H, Newark, East (Barnett Shale) Field, Tarrant County, Texas.

<sup>47</sup> RRC Conference of March 25, 2014, video transcript at 26 minutes, 15 seconds.



in the area, Vantage demonstrated that, under a probabilistic analysis, less than 75% of the wells in the 5-mile radius are expected ultimately to recover 4.1 BCF. While Vantage argues that 100% charge for risk is appropriate in this case, the Examiners are unable to cite to any previous Commission docket—in the Newark, East (Barnett Shale) Field—which finds that 100% charge for risk is proper. Furthermore, evidence presented by Vantage indicated that (presumably) the most recent Final Order to approve the requested 100% charge for risk was entered by the Commission in June 1987, for a MIPA unit in the Neuhoﬀ (Woodbine) Field.

Also, according to Smith & Weaver, “the percentage risk factor that appears in private joint operating agreements in the field” is a factor for the Commission to consider in selecting the appropriate charge for risk.<sup>48</sup> Private operating agreements in the area provide for a non-consent penalty of at least 300%, which far exceeds the 100% charge for risk under the MIPA. Because of the lower charge for risk under MIPA, some owners might choose compulsory pooling over voluntary pooling, which is contrary to the purpose of MIPA.

However, Vantage stated that it *would* consider a recommendation of a 50% charge for risk to be adverse in this case.

“Appendix 1” to this Report and Recommendation, incorporated into this finding by reference, is a plat for the proposed South Loop 820 4H MIPA Unit (the “*SL 4H Unit*”) (Vantage Exhibit No. 9A) showing the proposed wellbore path of Well SL 4H and the unleased tracts within the SL 4H Unit. “Appendix 1A” to this Report and Recommendation, incorporated into this finding by reference, is the legal description of the SL 4H Unit (Vantage Exhibit No. 10A).

“Appendix 2” to this Report and Recommendation, incorporated into this finding by reference, is a plat for the proposed Martin Forest Hills 1H MIPA Unit (the “*1H Unit*”) ((Vantage Exhibit No. 9B(U)) showing the proposed wellbore path of Well 1H and the unleased and partially-leased tracts within the 1H Unit. “Appendix 2A” to this Report and Recommendation, incorporated into this finding by reference, is the legal description of the 1H Unit (Vantage Exhibit No. 10B).

“Appendix 3” to this Report and Recommendation, incorporated into this finding by reference, is a plat for the proposed Martin Forest Hills 3H MIPA Unit (the “*3H Unit*”) ((Vantage Exhibit No. 9D(U)) showing the proposed wellbore path of Well 3H and the unleased and partially-leased tracts within the 3H Unit. “Appendix 3A” to this Report and Recommendation, incorporated into this finding by reference, is the legal description of the 3H Unit (Vantage Exhibit No. 10D).

“Appendix 4” to this Report and Recommendation, incorporated into this finding by reference, is a plat for the proposed Martin Forest Hills 4H MIPA Unit (the “*4H Unit*”) ((Vantage Exhibit No. 9E(U)) showing the proposed wellbore path of Well 4H and the unleased and partially-leased tracts within the 4H Unit. “Appendix 4A” to this Report and Recommendation, incorporated into this finding by reference, is the legal description of the 4H Unit (Vantage Exhibit No. 10E).

Based on the record in this case, the Examiners recommend adoption of the following Findings of Fact and Conclusions of Law.

---

<sup>48</sup> 3 Ernest E. Smith & Jacqueline Lang Weaver, TEXAS LAW OF OIL AND GAS, § 12.6(B) at page 12-65 (LexisNexis Matthew Bender 2013).

## FINDINGS OF FACT

1. Notice of the hearing was mailed to all interested parties at mailing addresses provided by the Applicant, Vantage Fort Worth Energy LLC (“Vantage”), at least 30 days prior to the hearing date.<sup>49</sup>
2. Notice of the hearing was published in the Commercial Recorder on February 24, March 2, March 9, and March 16, 2016.<sup>50</sup>
3. No one appeared at the hearing in opposition to Vantage's applications.
4. On February 23, 2016, Vantage sent a voluntary pooling offer to all mineral owners of unleased tracts within the boundaries of the proposed MIPA units.<sup>51</sup> The unleased mineral owners were offered four options for inclusion of their interests in the proposed units: two lease options, a working-interest participation option, and a farm-out option.
  - a. The first lease option included a 25% royalty and a bonus offer of \$3,000 per net mineral acre, for a three-year primary term. The oil, gas, and mineral lease attached to the offer letter provided that Vantage was authorized to pool the tract owner’s mineral interest into a pooled unit and drill a horizontal well beneath the surface of the leased premises but could not conduct drilling operations on the surface of the lease.
  - b. The second lease option included a 20% royalty and a bonus offer of \$3,500 per net mineral acre. Except for the different royalty and bonus amounts, this second lease option was identical to the first lease option.
  - c. The participation option provided each unleased owner an opportunity to participate as a working interest owner in the respective proposed unit. By choosing this option, the owner would be responsible for his or her proportionate share of the costs of drilling and completing the well or wells in the unit and would share proportionately in the production from the well. Each offer letter had as an attachment an AFE (Authorization for Expenditure) indicating the estimated cost to complete and drill the relevant well.
  - d. The estimated cost for Well No. SL 4H is \$2,022,363; for the 1H, \$2,041,317; for the 3H, \$2,137,584; and for the 4H, \$1,755,597.<sup>52</sup> The participation option stated that if the owner failed to fully pay his or her proportionate share of costs to Vantage within 15 days prior to commencement of actual drilling operations, then the owner would be subject to the non-consent penalties set forth in the standard Joint Operating Agreement (the “JOA”) proposed by Vantage.
  - e. Vantage represented to each owner that the proposed JOA would not contain any of the following: (1) a preferential right of the operator to purchase mineral

---

<sup>49</sup> Ex. 3.

<sup>50</sup> Ex. 4.

<sup>51</sup> Exs. 11A, 11B, 11D, and 11E.

<sup>52</sup> Ex. 21.

interests in the unit; (2) a call on or option to purchase production from the unit; (3) operating charges that may include any part of district or central office expenses other than reasonable overhead charges; or (4) a prohibition against non-operators questioning the operation of the unit.

- f. The farm-out option proposed to each unleased owner that he or she convey to Vantage an 80% net revenue interest attributable to his or her mineral interest and retain an overriding royalty interest equal to 20% of 8/8ths, proportionately reduced to the extent that each owner's mineral interest bears to all of the mineral interests in the unit, until payout of all well costs (to drill, test, fracture stimulate, complete, equip, and connect the well for production). At payout, the electing owner would have the option to convert the retained override to a 25% working interest, proportionately reduced.
5. Vantage provided the essential terms of the participation option and the farm-out option in its offer letter. Vantage did not enclose copies of its participation agreement or farm-out agreement, but instead offered to provide a copy of its participation agreement and farm-out agreement to any mineral owner who was interested in one or both of those options. None of the mineral owners expressed an interest in either the participation option or the farm-out option.
6. The options included in the voluntary pooling offer made by Vantage contained the same options as the voluntary pooling offer the Commission found to be fair and reasonable in Vantage's prior MIPA applications.<sup>53</sup>
7. The tracts within each proposed MIPA unit are embraced in the Newark, East (Barnett Shale) Field, a common reservoir of oil or gas for which the Commission has established the size and shape of proration units. The Newark, East (Barnett Shale) Field is present and reasonably productive in the area covering all of the proposed units.<sup>54</sup>
8. The Newark, East (Barnett Shale) Field was discovered in 1981. This field has special field rules providing for 330-foot lease-line spacing, and there is no between-well spacing requirement. The standard drilling and proration unit for the Newark, East (Barnett Shale) is 320 acres. An operator is permitted to form optional drilling units of 20 acres.<sup>55</sup>
9. Vantage estimated the volumetrically-calculated gas in place beneath the leased acreage within four proposed units. Using a 55 percent recovery factor, Vantage calculated that the recoverable gas in place beneath the leased acreage of the SL 4H Unit is 4.4 BCF; the 1H Unit is 5.1 BCF; the 3H Unit is 5.6 BCF; and the 4H Unit is 4.0 BCF.<sup>56</sup>
10. Vantage created a scatter plot of the estimated ultimate recoveries (the "EURs") versus the estimated drainhole length for Barnett Shale wells within five miles of the proposed

---

<sup>53</sup> See Oil & Gas Docket Nos. 09-0284751, 09-0284752, 09-0284753, 09-0284754, approved in April 2014; Docket Nos. 09-0288329, 09-0288331, 09-0288332, and 09-0288333, approved in January 2015; Docket Nos. 09-0295894, 09-0295895, and 09-0295896, approved in October 2015.

<sup>54</sup> Tr., pgs. 49, and 51-57.

<sup>55</sup> Ex. 13.

<sup>56</sup> Ex. 19(U).

MIPA units. A computer-generated least-squares regression of the plotted data points resulted in a line with a positive slope of 0.7806 and a y-intercept of 579.07. The inference of this resulting equation is that an average well within the five-mile radius will recover 0.7806 MMCF of gas for each incremental foot of drainhole length.<sup>57</sup>

11. Vantage cannot drill the four proposed wells unless compulsory pooling is ordered as requested.<sup>58</sup> None of the four proposed wells can be drilled to its full planned length without traversing one or more unleased tracts.
12. There are no regular locations within the proposed units where a feasible horizontal well could drain the proposed unit.<sup>59</sup>
13. The proposed MIPA wells will reasonably drain the proposed MIPA units.<sup>60</sup>
14. Compulsory pooling within each of the nine units as requested by Vantage will protect the correlative rights and prevent waste. Without compulsory pooling, Vantage will not be able to drill the proposed wells, Vantage and its lessees will not have a reasonable opportunity to recover their fair share of hydrocarbons from the reservoir, and the underlying hydrocarbons will be left unrecovered.
15. Vantage presented evidence supporting a charge for risk of 50 percent of the drilling and completion costs of the respective well.

#### **CONCLUSIONS OF LAW**

1. Pursuant to Texas Natural Resources Code § 102.016, notice of the hearing was given to all interested parties by mailing the notices to their last known addresses at least 30 days before the hearing and, in the case of parties whose whereabouts were unknown, by publication of notice for four consecutive weeks in a newspaper of general circulation in the county where the proposed unit is located at least 30 days before the hearing.
2. The Commission has jurisdiction over the parties and the subject matter and has authority to issue a compulsory pooling order pursuant to Texas Natural Resources Code § 102.011.
3. Vantage made a fair and reasonable offer to pool voluntarily to the mineral owners of the unleased tracts within each of the proposed units, as required by Texas Natural Resources Code § 102.013.
4. Compulsory pooling of the owners of the unleased tracts within each of the proposed proration units as owners of a 25% royalty and 75% working interest, proportionately reduced, with these owners' share of expenses, subject to a charge for risk of 50%, payable only from the owners' working-interest component, and subject to a no-surface-use restriction, is fair and reasonable within the meaning of Texas Natural Resources

---

<sup>57</sup> Ex. 18.

<sup>58</sup> Tr., pg. 22.

<sup>59</sup> *Id.*

<sup>60</sup> Tr., pgs. 64-5.

Code § 102.017.

5. Compulsory pooling of the mineral interests in all tracts within the boundaries of the SL 4H Unit, 1H Unit, 3H Unit, and 4H Unit will serve the purpose of protecting correlative rights.
6. The terms and conditions of the Commission's Final Order in this proceeding are fair and reasonable and will afford the owner of each tract or interest in each respective unit the opportunity to produce or receive his fair share.

**RECOMMENDATION**

The Examiners recommend that Vantage's applications be approved, subject to conditions, as set forth in the attached recommended Final Orders.

Respectfully Submitted,



Ryan M. Lammert  
Administrative Law Judge



Brian Fancher  
Technical Examiner

